I CLAIM:

1. A Nuclear Myosin I β protein comprising a 16 amino acid N-terminal extension added to a cytoplasmic Myosin I k protein amino acid sequence.

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The Nuclear Myosin I β protein of claim 1 wherein the amino acid 2.

5	sequence com	nprises:\		
	mryrasalgs	dgvrvtinesa	ltardrvgvq	dfvllenfts
	eaafienlrr	rfrenliyty	igpvlvsvnp	yrdlqiysrq
	hmeryrgvsf	yevpphlfav	adtvyralrt	errdqavmis
	gesgagktea	tkrllqfyae	tcpapergga	vrdrllqsnp
10	vleafgnakt	lrndnssrfg	kymdvqfdfk	gapvgghils
	ylleksrvvh	qnhgernfhv	fyqlleggee	etlrrlgler
	npqsylylvk	gqcakvssin	dksdwkvmrk	alsvidfted
	evedllsiva	svlhlgnihf	\aadedsnaqv	ttenqlkylt
	rllgvegttl	realthrkii	akgeellspl	nleqaayard
15	alakavysrt	ftwlvrkinr	slaskdaesp	swrsttvlgl
	ldiygfevfq	hnsfeqfcin	ycheklqqlf	ieltlkseqe
	eyeaegiawe	pvqyfnnkii	cdlveekfkg	iisildeecl
	rpgeatdltf	lekledtvkp	hphflthkla	dqktrksldr
	gefrllhyag	evtysvtgfl	dknndllfrn	lketmcssmn
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	payircikpn	dakqpgrfde	vlirhqvkyl	glmenlrvrr
	agfayrrkye	aflqrykslc	petwpmwagr	pqdgvavlvr
	hlgykpeeyk	mgrtkifirf	pktlfateds	levrrqslat
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	lrrqlprnvl	dtswptpppa	lreasellre	lcmknmvwky
	crsispewkq	qlqqkavase	ifkgkkdnyp	qsvprlfist
	rlgteeispr	vlqslgsepi	qyavpvvkyd	kgykprprq
	llltpsavvi	vedakvkqri	dyanltgisv	ssisdsifvi
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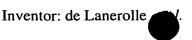
2:

30

ctcagcatcg

841

gtccgtcatt





3. An oligonucle tide sequence encoding the Nuclear Myosin I β of

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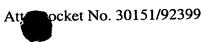
claim 1. A cDNA molecule with the following nucleotide sequence: 4. gccgggtcdg ctaccgggca tcggccctgg 1 gcaggatgcg ggagcggggc 5 gcagtgacgg gcgccttgac tgcccgagac cgggtagggg 61 ggttcgagtg accatggaga tgcaggactt tgccttcatt gagaacctcc 121 gagaatttca ccagtgaggc tgtcctgctg ggcggcggtt tcctgtccta gtctctgtca 10 181 ctcatttata cctacatcgg ccgggagaac atccctaccg 241 ggaacgctac cgtggtgtca atctacagcc ggcagcatat agacctacag gtttctatga 301 cactgtatac cgggcacttc cagtggctga agtaccacct catttgtttg 15 gtactgagcg gagtggggca 361 tttctggaga ggcaagacag gcagtgatga tcgggaccag aggccaccaa 421 cagagactg cccagcccct gaacggggtg gagactgctc cagttctatg gcgcagtgcg 481 agaggccttt gggaatgcca 20 agaccgcctg ttgcagagca acccgtgtt agacteteeg 541 ttggaaagta\ catggatgtg cagtttgact caacgataac tccagccggt tcaagggtgc 601 tcagttacct cctggaaaag tcccgggtgg ggccacattc ccccgtggga 25 tgcaccaaaa 661 acgtctttta ccagctactg gaggggggcg cggaacttcc tcacggagag aggaggagac 721 ccagagctac ttgtacctgg aacggaaccc ctgggcttgg tctccgtcgg tgaagggcca 30 781 gtctcctcca tcaacgacaa gagtgactgg aaggttatga gtgtgccaag ggaaggcgct

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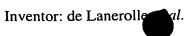
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ggaggacttg

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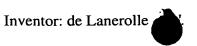


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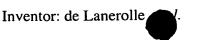


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		accttttag				
30	3661	cca.	1			

5. A peptide comprising an amino acid sequence MRYRASALGSDGVRVT.

Sub A2



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- 6. A cDNA molecule encoding the peptide of claim 4.
- 7. The peptide of claim 5 comprising an epitope with the amino acid sequence FLAG.
 - 8. An antibody directed to the Nuclear Myosin I β protein of claim 2.
- An antibody directed to the peptide of claim 4.
 - 10. The antibody of claim 7, wherein the antibody is a monoclonal antibody.
 - 11. An antibody directed to the peptide of claim 7.
 - 12. A functional complex formed between one RNA polymerase II.
- 10 13. A method for inhibiting cell proliferation, said method comprising:
 - (a) obtaining at least one antibody to the peptide of claim 5; and
 - (b) administering the antibody to an organism so that the antibody contacts cells.
 - 14. The method of claim 13 wherein the antibody is a monoclonal
- 15 antibody.

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- 15. The method of claim 13 wherein the antibody is a synthetic compound.
- 16. A method for inhibiting cell proliferation, said method comprising
 - a) obtaining an antisense oligonucleotide to the cDNA of claim 3;
 - (b) contacting the cDNA with the antisense oligonucleotide to prevent expression of the cDNA and reduce cell proliferation.
- 17. A method for screening a candidate agent that inhibits transcription, said screening method comprising the antibodies in claim 9.
 - (a) providing proliferating cells;
 - (b) contacting the cells with the candidate agent;
- (c) determining whether nuclear myosin I β (MNI β) is translocated to the nucleus of the cells; and
 - (d) inferring that the candidate agent is an inhibitor of cell proliferation if NMI β is not detected in the cells nucleus.